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EXAMINER

YOUNG, JANELLE N

ART UNIT PAPER NUMBER

2618

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/788,568	TSAI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Janelle N. Young	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6 and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kumar et al. (US Patent 6434367).

As for claim 1, Kumar et al. teaches a method of reverse link power control at a mobile station, comprising:

transmitting a pilot signal at a controlled transmit power; transmitting one or more traffic channel signals at one or more power gains directly or indirectly relative to the transmit power of the pilot signal; and adjusting the power gain of one or more of the traffic channel signals responsive to receiving reception quality feedback from one or more remote transceivers for the one or more traffic channel signals (Abstract; Col. 6, lines 28-46; and Col. 14, lines 10-31 of Kumar et al.).

As for claim 2, Kumar et al. teaches a method of reverse link power control at a mobile station, wherein transmitting one or more traffic channel signals at one or more power gains relative to the transmit power of the pilot signal comprises transmitting a first traffic channel signal at a first power gain relative to the pilot signal, and transmitting

a second traffic channel signal at a second power gain relative to the first traffic channel signal (Abstract; Col. 6, lines 28-46; and Col. 15, line 61-Col 17, line 8 of Kumar et al.).

As for claims 3-4, Kumar et al. teaches a method of reverse link power control at a mobile station, further comprising setting the second power gain responsive to receiving reception quality feedback for the second traffic channel signal such that the transmit power of the second traffic channel signal relative to the transmit power of the first traffic channel signal varies as a function of the reception quality feedback received by the mobile station for the second traffic channel signal and maintaining the first traffic channel at a fixed power gain relative to the pilot signal (Col. 8, lines 35-43; Col. 12, lines 34-42; and Col. 19, lines 1-18 in correspondence with Col. 16, lines 20-25 of Kumar et al.).

As for claim 5, Kumar et al. teaches a method of reverse link power control at a mobile station, wherein adjusting the power gain of one or more of the traffic channel signals responsive to receiving reception quality feedback from one or more remote transceivers for the one or more traffic channel signals comprises receiving reception quality feedback for at least one traffic channel signal and adjusting the power gain of that traffic channel signal relative to the transmit power of the pilot signal, or relative to a transmit power of another traffic channel signal that is transmitted with a power gain relative to the transmit power of the pilot signal (Col. 8, lines 35-43; Col. 12, lines 34-42; and Col. 19, lines 1-18 in correspondence with Col. 16, lines 20-25 of Kumar et al.).

As for claim 6, Kumar et al. teaches a method of reverse link power control at a mobile station, wherein transmitting a pilot signal at a controlled transmit power

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comprises adjusting a transmit power of the pilot signal responsive to power control commands received by the mobile station from one or more network base stations (Abstract; Col. 1, lines 20-31; Col. 2, lines 18-26; Col. 3, line 53-Col. 4, line 3; Col. 6, lines 10-64; and Col. 15, line 61-Col. 16, line 25 of Kumar et al.).

Regarding claim 14, see explanation as set forth regarding claim 1 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 15, see explanation as set forth regarding claim 2 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claims 16-17, see explanation as set forth regarding claims 3-4 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 18, see explanation as set forth regarding claim 5 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 19, see explanation as set forth regarding claim 6 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-12 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Kumar et al. (US Patent 6434367) as applied to claim 1 above, and further in view of Chaponniere et al. (US Patent 6937584).

As for claim 7, Kumar et al. teaches a method of reverse link power control at a mobile station, in which the frame error indications from all base station determined good frames received from other base stations (Col. 13, lines 3-13 of Kumar et al.).

What Kumar et al. does not explicitly teach is a mobile station that receives reception quality feedback for a given one of the one or more traffic channel signals as good and bad reception indicators that indicate good or bad reception by one or more network base stations.

However Chaponniere et al. teaches a method of reverse link power control at a mobile station, wherein the mobile station receives reception quality feedback for a given one of the one or more traffic channel signals as good and bad reception indicators that indicate good or bad reception by one or more network base stations. (Col. 10, lines 5-18 in respect to Col. 8, lines 5-11; Col. 9, lines 52-56; and Col. 12, lines 11-16 of Chaponniere et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a controlling gain level and power control scheme of a supplemental channel techniques, as taught by Chaponniere et al., in the power control sub-channel to control reverse-link channel power planning of Kumar et al., because Kumar et al. already teaches a wireless communication system technique for transmitting power control signals; receiving & processing one or more reverse-link channels; and supplemental channel request (Col. 6, lines 27-64 and Col. 10, lines 50-57 of Kumar et al.).

The motivation of this combination would be the effect of the power control technique enabling the mobile to transmit at a minimal acceptable power level in order to maintain communications, as taught by Kumar et al. in Col. 5, lines 45-67, because it will cause an efficient use and possibly limited power available at the mobile and reducing the possibility of interference at the base stations with reverse-link signals transmitted from other mobile units. The power level may be based on the gain level of each communication channel through a power control scheme in the communication system (Col. 1, lines 34-54 of Chaponniere et al.). This incorporation would cause an efficient gain control of the supplemental channel in a communication system (Col. 5, lines 11-22 of Chaponniere et al.).

As for claim 8, Chaponniere et al. teaches a method of reverse link power control at a mobile station, wherein the mobile station adjusts the power gain of the given traffic channel signal by decreasing the power gain responsive to receiving one or more good reception indicators, and increases the power gain responsive to receiving one or more

bad reception indicators (Abstract; Col. 1, line 60-Col. 2, line 12; Col. 6, lines 37-55 in correspondence to Col. 10, lines 5-18 in respect to Col. 8, lines 5-11; Col. 9, lines 52-56; and Col. 12, lines 11-16 of Chaponniere et al.).

As for claim 9, Kumar et al. teaches a method of reverse link power control at a mobile station, wherein the good and bad reception indicators comprise ACKs and NAKs, respectively, and wherein the mobile station adjusts the power gain of the given traffic channel signal by decreasing the power gain responsive to receiving one or more ACKs and increasing the power gain responsive to receiving one or more NAKs (Col. 5, lines 46-67 in respect to Col. 10, lines 50-57; Col. 11, lines 35-43; and Col. 11, line 57-Col. 12, line 3 of Kumar et al.).

As for claims 10-11, Kumar et al. teaches a method of reverse link power control at a mobile station, wherein the mobile station increases the power gain for the given traffic channel signal by a first step size responsive to receiving a NAK and/or decreases the power gain for the given traffic channel signal by a second, smaller step size responsive to receiving an ACK (Col. 5, lines 46-67 Col. 8, line 61-Col. 9, line 3 ; Col. 10, line 65-Col. 11, line 3; Col. 11, lines 19-34; Col. 12, lines 20-33; Col. 18, lines 3-12; and Col. 19, lines 1-17 in respect to Col. 10, lines 50-57; Col. 11, lines 35-43; and Col. 11, line 57-Col. 12, line 3 of Kumar et al.).

As for claim 12, Kumar et al. teaches a method of reverse link power control at a mobile station, further comprising calculating the second step size as a function of the first step size and a Frame Error Rate (FER) determined from the ACK/NAK feedback (Col. 13, lines 1-13 of Kumar et al.).



As for claim 13, Kumar et al. teaches a method of reverse link power control at a mobile station, wherein the reception quality feedback comprises one or more of ACK/NAK feedback, quality indication feedback, and erasure indication feedback (Col. 9, line 59-Col. 10, line 23; Col. 12, lines 20-42; Col. 13, lines 1-39; and Col. 19, lines 18-31 of Kumar et al.).

Regarding claim 20, see explanation as set forth regarding claim 8 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

As for claims 21-22, Kumar et al. teaches a mobile station, wherein the mobile station is configured to increase the power gain for the given traffic channel signal by a first step size responsive to receiving a bad reception indicator and/or to decrease the power gain for the given traffic channel signal by a second, smaller step size responsive to receiving a good reception indicator (Col. 5, lines 46-67 Col. 8, line 61-Col. 9, line 3 ; Col. 10, line 65-Col. 11, line 3; Col. 11, lines 19-34; Col. 12, lines 20-33; Col. 18, lines 3-12; and Col. 19, lines 1-17 in respect to Col. 10, lines 5-18 of Kumar et al.).

Regarding claim 23, see explanation as set forth regarding claim 12 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 24, see explanation as set forth regarding claim 13 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

3. Claims 25-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Kumar et al. (US Patent 6434367) as applied to claim 1 above, and further in view of Chaponniere et al. (US Patent 6937584).

As for claims 25-26, Kumar et al. teaches a method of data link power control at a communication transceiver, comprising:

controlling a transmit power of a signal transmitted by the communication transceiver responsive to one or more received power control commands and receiving reception quality information relating to a signal (Col. 8, lines 35-43; Col. 12, lines 34-42; and Col. 19, lines 1-17 of Kumar et al.).

What Kumar et al. does not explicitly teach is adjusting the power gain.

However Chaponniere et al. teaches a method of setting and/or transmitting a signal at a power gain relative to the transmit power of the first signal and adjusting the power gain signal up and/or down as needed responsive to responsive to the reception quality feedback (Col. 5, line 59-Col. 6, line 4; Col. 7, lines 31-45; Col. 8, lines 16-43; and Col. 10, lines 5-18 of Chaponniere et al. in respect to Col. 1, lines 14-32).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a controlling/adjusting gain level and power control scheme of a supplemental channel techniques, as taught by Chaponniere et al., in the power control sub-channel to control reverse-link channel power planning of Kumar et al., because Kumar et al. already teaches a wireless communication system technique for transmitting power control signals; receiving & processing one or more reverse-link

channels; and supplemental channel request (Col. 6, lines 27-64 and Col. 10, lines 50-57 of Kumar et al.).

The motivation of this combination would be the effect of the power control technique enabling the mobile to transmit at a minimal acceptable power level in order to maintain communications, as taught by Kumar et al. in Col. 5, lines 45-67, because it will cause an efficient use and possibly limited power available at the mobile and reducing the possibility of interference at the base stations with reverse-link signals transmitted from other mobile units. The power level may be based on the gain level of each communication channel through a power control scheme in the communication system (Col. 1, lines 34-54 of Chaponniere et al.). This incorporation would cause an efficient gain control of the supplemental channel in a communication system (Col. 5, lines 11-22 of Chaponniere et al.). It would also control interference and maintain an adequate system capacity (Col. 5, line 59-Col. 6, line 4 of Chaponniere et al.).

As for claim 27, Kumar et al. teaches a method of data link power control at a communication transceiver, further comprising transmitting a third signal having a power gain relative to the transmit power of the first signal, and setting the power gain of the second signal relative to the third signal (Col. 2, lines 18-64 of Kumar et al.).

As for claim 28, Chaponniere et al. teaches a method of data link power control at a communication transceiver, wherein adjusting the power gain of the second signal responsive to the reception quality feedback comprises adjusting the power gain of the second signal relative to the first and third signals such that power ratios of the first and third signals to the second signal change as a function of reception quality feedback

received for the second signal (Col. 5, lines 45-58; Col. 6, lines 26-36; and Col. 10, lines 5-51 in respect to Col. 2, lines 18-64 of Chaponniere et al.).

As for claim 29, Kumar et al. teaches a method of data link power control at a communication transceiver, further comprising adjusting an inner-loop power control target of the first signal based on a received signal quality of the third signal (Col. 8, lines 35-43 and Col. 15, lines 30-53 of Kumar et al.).

As for claim 30, Chaponniere et al. teaches a method of data link power control at a communication transceiver, wherein the first signal comprises a pilot signal, and the second and third signals comprise first and second traffic channels, respectively (Col. 4, line 36-Col. 5, line 17; Col. 6, lines 5-16; and Col. 7, line 62-Col. 8, line 43 of Chaponniere et al.).

As for claim 31, Chaponniere et al. teaches a method of data link power control at a communication transceiver, wherein controlling a transmit power of a first signal transmitted by the communication transceiver responsive to received power control commands comprises transmitting a pilot signal and adjusting the transmit power of the pilot signal responsive to the received power control commands, and wherein transmitting a second signal at an adjustable transmit power having a power gain relative to the transmit power of the first signal comprises transmitting a data signal at a transmit power determined by the transmit power of the pilot signal and the power gain (Col. 3, line 56-Col. 4, line 4 corresponding with Col. 1, lines 33-54 and Col. 7, line 62-Col. 8, line 60 of Chaponniere et al.).

As for claim 32, Chaponniere et al. teaches a method of data link power control at a communication transceiver, wherein receiving reception quality feedback relating to the second signal comprises receiving good and bad reception indicators that indicate whether a remote transceiver correctly received data carried by the data signal (Col. 9, line 66-Col. 10, line 31 of Chaponniere et al.).

As for claim 33, Kumar et al. teaches a method of data link power control at a communication transceiver, wherein receiving good and bad reception indicators that indicate whether a remote transceiver correctly received data carried by the data signal comprises receiving ACK/NAK indications from the remote transceiver for each frame of the data signal, and wherein adjusting the power gain of the second signal relative to the first signal responsive to the reception quality feedback comprises increasing the power gain by a first amount responsive to receiving a NAK and decreasing the power gain by a second amount responsive to receiving an ACK (Col. 5, lines 45-67; Col. 8, line 61-Col. 9, line 3; Col. 10, lines 50-58; Col. 11, lines 35-44; Col. 11, line 57-Col. 12, line 3; and Col. 13, lines 1-13 in respect to Col. 1, lines 33-56; Col. 2, lines 18-26 & 44-54; and Col. 3, lines 26-37 of Kumar et al.).

As for claim 34, Kumar et al. teaches a method of data link power control at a communication transceiver, wherein the communication transceiver comprises a mobile station, the first signal comprises a pilot signal, and the second signal comprises a traffic channel signal, and wherein controlling a transmit power of a first signal transmitted by the communication receiver responsive to received power control commands comprises controlling the transmit power of the pilot signal responsive to

power control commands transmitted to the mobile station by one or more network base stations.

As for claim 37, Kumar et al. teaches a method of data link power control at a communication transceiver, wherein the communication transceiver comprises a network base station in a wireless communication network (Col. 6, lines 47-64 of Kumar et al.).

Regarding claim 38, see explanation as set forth regarding claim 13 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

4. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Kumar et al. (US Patent 6434367) and further in view of Chaponniere et al. (US Patent 6937584) as applied to claim 34 above, and further in view of Parkvall et al. (US Patent 2002/0080719).

As for claim 35, Kumar et al. and Chaponniere et al. teach a method of data link power control at a communication transceiver (Col. 6, lines 47-64 of Kumar et al.), wherein transmitting a second signal at a controlled power gain relative to the first signal (Col. 1, lines 34-54 of Chaponniere et al.).

What Kumar et al. and Chaponniere et al. do not explicitly teach are network base stations on a per frame basis.

However Parkvall et al. a method of data link power control at a communication transceiver, comprises of transmitting data frames on the traffic channel signal wherein

receiving reception quality feedback relating to the second signal comprises receiving reception quality feedback from one or more network base stations on a per frame basis (Page 5, Para 0046-0047 of Parkvall et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a scheduling transmission of data over a transmission channel based on signal quality of a receive channel technique, as taught by Parkvall et al., in the power control sub-channel to control reverse-link channel power planning of Kumar et al. and Chaponniere et al., because Kumar et al. and Chaponniere et al. already teach a wireless communication system technique for transmitting power control, traffic, and data signals/channels (Page 3, Para 0021 and Page 4, Para 0039 of Parkvall et al.).

The motivation of this combination would be the effect of the power control technique enabling the mobile to transmit at a minimal acceptable power level in order to control interference and maintain an adequate system capacity and communications maintain, as taught by Kumar et al. and Chaponniere et al., because it will help regulate the transmit power levels. This incorporation would cause a more reliable and efficient data delivery in a communications system (Page 1, Para 0001 of Parkvall et al.).

Regarding claim 36, see explanation as set forth regarding claims 9-11 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

5. Claims 39-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Kumar et al. (US Patent 6434367) as applied to claim 1 above, and further in view of Chaponniere et al. (US Patent 6937584).

As for claim 39, Kumar et al. teaches a communication transceiver, comprising:

transceiver circuits to transmit and receive signals to and from one or more remote transceivers; and one or more processing circuits operatively associated with the transceiver circuits, said one or more processing circuits including a power control circuit configured to: control a transmit power of a first signal transmitted by the communication transceiver responsive to power control commands received by the communication transceiver. (Col. 6, lines 28-64 of Kumar et al.)

What Kumar et al. does not explicitly teach is adjusting the power gain.

However Chaponniere et al. teaches a communication transceiver including a power control circuit configured to adjust the power gain of the second signal responsive to the reception quality feedback received by the communication transceiver for the second signal and control a power gain of a second signal transmitted by the communication transceiver directly or indirectly relative to the transmit power of the first signal (Col. 5, line 59-Col. 6, line 4; Col. 7, lines 31-45; Col. 8, lines 16-43; and Col. 10, lines 5-18 of Chaponniere et al. in respect to Col. 1, lines 14-32).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a controlling/adjusting gain level and power control scheme of a supplemental channel techniques, as taught by Chaponniere et al., in the



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power control sub-channel to control reverse-link channel power planning of Kumar et al., because Kumar et al. already teaches a wireless communication system technique for transmitting power control signals; receiving & processing one or more reverse-link channels; and supplemental channel request (Col. 6, lines 27-64 and Col. 10, lines 50-57 of Kumar et al.).

The motivation of this combination would be the effect of the power control technique enabling the mobile to transmit at a minimal acceptable power level in order to maintain communications, as taught by Kumar et al. in Col. 5, lines 45-67, because it will cause an efficient use and possibly limited power available at the mobile and reducing the possibility of interference at the base stations with reverse-link signals transmitted from other mobile units. The power level may be based on the gain level of each communication channel through a power control scheme in the communication system (Col. 1, lines 34-54 of Chaponniere et al.). This incorporation would cause an efficient gain control of the supplemental channel in a communication system (Col. 5, lines 11-22 of Chaponniere et al.). It would also control interference and maintain an adequate system capacity (Col. 5, line 59-Col. 6, line 4 of Chaponniere et al.).

Regarding claim 40, see explanation as set forth regarding claim 27 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 41, see explanation as set forth regarding claim 28 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 42, see explanation as set forth regarding claim 29 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 43, see explanation as set forth regarding claim 30 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claims 44-45, see explanation as set forth regarding claim 31 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 46, see explanation as set forth regarding claim 32 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 47, see explanation as set forth regarding claims 20-22 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

Regarding claim 48, see explanation as set forth regarding claim 13 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.

As for claim 49, Chaponniere et al. teaches a communication transceiver, wherein the communication transceiver comprises a mobile station, and wherein the first signal comprises a pilot signal and the second signal comprises a traffic channel

signal (Col. 4, line 36-Col. 5, line 17; Col. 6, lines 5-16; and Col. 7, line 62-Col. 8, line 43 of Chaponniere et al.).

6. Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Kumar et al. (US Patent 6434367) and further in view of Chaponniere et al. (US Patent 6937584) as applied to claims 39 & 49 above, and further in view of Parkvall et al. (US Patent 2002/0080719).

As for claim 50, Kumar et al. and Chaponniere et al. teach a communication transceiver (Col. 6, lines 47-64 of Kumar et al.), wherein transmitting a second signal at a controlled power gain relative to the first signal (Col. 1, lines 34-54 of Chaponniere et al.).

What Kumar et al. and Chaponniere et al. do not explicitly teach are network base stations on a per frame basis.

However Parkvall et al. a communication transceiver, comprises of transmitting data frames on the traffic channel signal wherein receiving reception quality feedback relating to the second signal comprises receiving reception quality feedback from one or more network base stations on a per frame basis (Page 5, Para 0046-0047 of Parkvall et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a scheduling transmission of data over a transmission channel based on signal quality of a receive channel technique, as taught by Parkvall et al., in the power control sub-channel to control reverse-link channel power

planning of Kumar et al. and Chaponniere et al., because Kumar et al. and Chaponniere et al. already teach a wireless communication system technique for transmitting power control, traffic, and data signals/channels (Page 3, Para 0021 and Page 4, Para 0039 of Parkvall et al.).

The motivation of this combination would be the effect of the power control technique enabling the mobile to transmit at a minimal acceptable power level in order to control interference and maintain an adequate system capacity and communications maintain, as taught by Kumar et al. and Chaponniere et al., because it will help regulate the transmit power levels. This incorporation would cause a more reliable and efficient data delivery in a communications system (Page 1, Para 0001 of Parkvall et al.).

As for claim 51, Parkvall et al. teaches a communication transceiver, the reception quality feedback comprises ACK/NAK feedback, and wherein the power control circuit is configured to increase the power gain of the traffic channel signal relative to the pilot signal by retransmitting a data frame for which a NAK was received by the mobile station according to a desired retry protocol, and increasing the power gain if the retransmission is unsuccessful (Page 2, Para 0011 & 0015; Page 3, Para 0021; Page 4, Para 0041; Page 6, Para 0056-0057 in respect to Page 1, Para 0004-0005 & 0009 and Page 5, Para 0045 & 0057 of Parkvall et al.).

Regarding claim 52, see explanation as set forth regarding claim 36 (method claim) because the claimed mobile station for reverse link power control would perform the method steps.


**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle N. Young whose telephone number is (571) 272-2836. The examiner can normally be reached on Monday through Friday: 8:30 am through 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JNY  
September 6, 2006

 9/12/06  
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